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PROLONGING THE LIFE OF FARM MACHINERY

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A broadcast by Samuel H. McCrory, Bureau of Agricultural Chemistry and Engineering, Thursday, September 18, 1941, in the Department of Agriculture portion of the National Farm and Home Hour, broadcast over stations associated with the Agriculture Blue Network of the National Broadcasting Company.

---ooOoo---

KADDERLY:

The information Mr. Needler has given us emphasizes the importance of making farm machinery we now have last longer. And we have a man with us who can make some suggestions along that line---Samuel H. McCrory, Assistant Chief of the Department's Bureau of Agricultural Chemistry and Engineering.

Mr. McCrory, I'm sure no one would take exception to the statement that the life of a farm machine---any machine---can be extended if we look after it---

McCRORY:

No argument on that point. And the things that can be done to increase the life and usefulness of a farm machine could be listed under a few broad headings.

KADDERLY:

Such as---

McCRORY:

Well, for one thing: after the season of use is past, check over the machine to see what may be needed in the way of replacements, repairs and adjustments.

KADDERLY:

And if there ever was time when this check up should be done without delay, this is the time.

McCRORY:

Indeed it is. Mr. Needler has pointed out how difficult it may be for manufacturers to get the metals and other materials needed for farm machinery. So, the quicker a farmer can check over his equipment and let his dealer know what he must have in the way of new parts, the better.

KADDERLY:

In other words, don't wait in ordering needed parts until it's about time to use the machine again.

McCRORY:

That's the point. It may be that some vital parts are still in good enough shape to function but may not last for another season. In that case spares for those parts should be ordered now.

KADDERLY:

Forewarned is forearmed.

Now to those other general suggestions you mentioned.

(Over)

McCRORY:

That good old tried-and-true axiom that machines last longer when they are stored under cover to protect them from the weather can't be emphasized too strongly.

KADDERLY:

And that would include greasing the vulnerable parts.

McCRORY:

Yes....and in some cases, painting.

A third general suggestion is to try out the equipment before putting it in use next season to be sure its in working order.

KADDERLY:

Let's apply those first two points---checking over the equipment and putting it away for the winter---to some of the more common farm machines. Starting with planting and cultivating machines.

McCRORY:

Well, all sorts of planting machines need to be checked up to locate parts that may need replacing. Planters with fertilizer distributors will suffer from seizing of parts and corrosion if any fertilizer is left in the compartment or in the distributing equipment.

KADDERLY:

Mr. McCrory, I've heard of cases where the seed and fertilizer boxes have been used as places to store tools, nails, bolts, screws---temporarily---of course.

McCRORY:

Not always temporarily! It seems almost silly to even suggest it---but the fact remains that the articles you named all too frequently are put in the boxes---and forgotten.

KADDERLY:

What about the case of plows, disks and cultivators?

McCRORY:

It goes without saying that cleaning the wearing parts of plows, then oiling them, is good practice and will make the plows last longer. And the idle season is a good time to sharpen the plow shares and list parts that need replacing.

And as for disks and disk plows---the principal precaution is see that the disks are greased to prevent rust---and the gang bolts are kept tight. Loose gang bolts often result in broken disks.

KADDERLY:

And cultivators?

McCRORY:

The machine ought to be sheltered, even if the shovels are taken off. Grease the shovels and see that they are sharpened. Tighten loose parts. And, as I've said for other machines---make note of defective parts.

KADDERLY:

That pretty well covers planting and cultivating equipment. Now let's get into the harvesting machines. What about mowers?

McCRORY:

Put the mower under cover. Remove the sickle and grease it to prevent rust. Check over the sickle sections and note the ones that should be replaced.

KADDERLY:

Next, binders.

McCRORY:

A general check up by all means.

Treat the cutter bars the same as mower sickles. That is---replace broken sections and grease all sections.

The knotter needs special attention.

KADDERLY:

Nothing so aggravating as a knotter that won't knot the twine. How well I know that! When I recall the number of times I've seen a shocking crew stand around while the operator sweat over a balky knotter---well, that's another story.

McCRORY:

Keeping grease and oil on the knotter when the binder is not in use will help to prevent rusting---and to keep it in good working order.

KADDERLY:

Mr. McCrory---jumping back to what you said about the corrosive action of chemicals in fertilizers when we were talking about planters with fertilizer distributors. That sort of wear is something to be guarded against in spraying and dusting equipment, isn't it?

McCRORY:

Yes, indeed. Spraying and dusting machines are likely to be damaged by chemical action unless certain parts coming in contact with the poisons are cleaned when the machines are stored. It is also desirable to see that any worn packing which might result in leakage is replaced. It is just as important to have a good fit of the plungers in spraying machines as it is to have a good gas tight fit between pistons and cylinders in engines.

KADDERLY:

Your reference to pistons and engines leads us right up to tractors. Books are written on the care of them---but maybe you could give us a quick review of the more common points in the care of tractors.

McCRORY:

Plenty to do there in the off season---and when the machine is in use, for that matter.

McCRORY (Continued):

Carburetor adjustment is of high importance as well as the check up of lubrication, ignition and cooling systems and valves. Leakage which results in the dilution of oil in the crank case is indirectly responsible for excessive wear because the thinned oil is a poor cushion against friction. Change oil and keep it up to the level as recommended by the manufacturer and use a good grade of oil. The ignition system, magneto breaker points, wiring, and plugs---will need to be looked after. There may be breaks in the wiring. The plugs may be dirty or porcelain cracked, and the spacing of the points may need to be adjusted.

If there is not a competent mechanic on the farm it is well to take the tractor in for an annual tune up at a good shop.

KADDERLY:

You know, rubber tires for use on farm machinery may be more and more difficult to get---and higher in price. Do you have some suggestions on making the tires now in use last longer?

McCRORY:

Yes---The rules getting the most out of tires are few---and simple.

Keep the tires inflated as recommended by the manufacturer. Keep weight off the tires when the machines are not in use. Handle the tractor so that slippage is not excessive. Don't try to pull a load so heavy as to cause undue slippage. Sometimes too many plow bottoms are used for the size of the tractor and even though the tractor pulls them there may be a great deal of tire slippage.

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